

JEZO I.

CZECHOSLOVAKIA/Organic Chemistry - Naturally Occurring
Substances and Their Synthetic Analogs.

G.

ABs Jour : Ref Zhur - Khimiya, No 9, 1958, 28934.

Author : Dubravkova, L., Jezo, I., Sevcovic, P., Voticky, Z.

Inst : -

Title : Some Esters of 1-N-Methylephedrine.

Orig Pub : Chem Zvesti, 11, No 5, 281-284 (1957) (in Slovak with
summaries in German and Russian)

Abstract : A number of esters of 1-N-methylephedrine (I) with ali-
phatic aromatic acids are described. The esters were
prepared from I by a previously described method
(RZhKhim , 1957, 71547). I is synthesized by the follo-
wing series of reactions: 3.3 gms of L-ephedrine, 588
gms of formalin (40 gms CH₂O per 100 ml), and 390 gms
of 85% HCOOH are refluxed for 5 hrs, and the product of
the reaction is decomposed with 195 gms NaOH in 470 ml
water; the yield of I is 286 gms, mp 85-86°.

Card 1/3

SEZ0, 1.

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14415.

Author : Dubravkova L., Jezo I., Sefcovic P., Voticky Z.

Inst :

Title : Some Esters of Basic Isopropanols.

Orig Pub: Chem. zvesti, 1957, 11, No 6, 351-357.

Abstract: Syntheses of $RCH_2CH(CH_3)OCOAr$ (I), wherein R is the residue of an amine, by boiling for 3 hours 0.1 mole $R'COCl$ in 100 ml C_6H_6 and 0.2 mole $RCH_2CH(CH_3)OH$ in 150 ml C_6H_6 (the latter were prepared, with yields of 75-96%, from CH_3CHCH_2O and RH in autoclave, 5 hours, 170-190°). Listing the Ar, yield of I in %, BP in °C, MP of picrate and methyl iodide in °C: with R = $(CH_3)_2N$: C_6H_5 , 87-89/1 mm, 181-182, 184-186; o- $CH_3OC_6H_4$ (Ar'), 125-126/1 mm, 165-166, 196-197; p- $CH_3OC_6H_4$ (Ar²), 115-117/0.5 mm, 200-201, 169-170; 3,4- $(CH_3O)_2C_6H_2$ (Ar³), 159-160/1.5 mm, 203-204, 200-202; 3,4,5- $(CH_3O)_3C_6H_2$ (Ar⁴), 148-149/0.5 mm, 194-195,

Card : 1/2

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14415.

205-206; with R = (C₆H₅)₂N: C₆H₅, 113-115/0.2 mm, 102-103, 149-150; Ar¹, 133-134/0.15 mm, 98-99, 118-119; Ar², 142-144/0.15 mm, 126-127, Ar³, 161-163/0.2 mm, 158-159, 182-183; Ar⁴, 163-165/0.2 mm, 159-160, 185-186; with R = N-piperidyl: C₆H₅, 109-110/0.1 mm, 139-140, 128-129; Ar¹, 156-157/0.2 mm, 147-148, 133-134; Ar², 164-166/0.2 mm, 169-170, 191-192; Ar³, 172-174/0.2 mm, 224-225, 195-196; Ar⁴, 176-178/0.2 mm, 179-180, 199-200; with R = N-morpholyl: C₆H₅, 123-124/0.1 mm, 202-203, 140-141; Ar¹, 160-161/0.15 mm, 171-172, 150-151; Ar², 178-180/0.15 mm, 185-186, 193-195; Ar³, 191-193/0.25 mm, 227-228, 195-196; Ar⁴, 203-205/0.2 mm, 209-210, 208-209.

Card : 2/2

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

Author : Dubrakova, L.; Jezo, I.; Sefcovic, P.; Voticky, Z.
Inst : Not given
Title : Abnormal Course of Reaction of Bischler-Napieralsky.

Orig Pub: Chem zvesti, 1957, 11, No 9, 536-541.

Abstract: In the study of the method of synthesis of the isoquinoline analogue of podophyllotoxin, 1-(3,4,5-trimethoxyphenyl)-3-carbethoxy-6,7-methylenedioxy-3,4-dihydroisoquinoline (I) was obtained, and it was found on that occasion that no cyclohydration of the ethyl ester of α -(3,4,5-trimethoxy-benzamido)- β -(3,4-methylenedioxyphenyl)-propionic acid (II) is caused by the action of P_2O_5 ; 4-piperonylidene-2-(3,4,5-trimethoxyphenyl)-oxazolone (III) is obtained with PCl_5 , and I is only partially produced

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CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

Abstract: with POCl_3 , but 5-ethoxy-4-piperonyl-2,3,4,5-trimethoxyphenyl)-oxazole (IV) is formed as the main product. Solution of 200 g of III in 300 g of 10% NaOH with water added to bring up the total volume to 1.6 liter is boiled for 6 hours, cooled, and, after the acidification of the solution, α -3,4,5-trimethoxybenzamido- β -(3,4-methylenedioxyphenyl)-acrylic acid (V) precipitates, yield 91%, melt. p. 228-229° (from alc.). 1.5 kg of 4% Na amalgam is added to the solution of 133 g of V in 1.5 liter of water with 30 g of NaOH maintaining the basic reaction, the mixture is filtered and acidified, and α -3,4,5-trimethoxybenzamido- β -(3,4-methylenedioxyphenyl)-propionic acid (VI) precipitates; yield 85%, melt. p. 193-194° (from alc.). 45 g of VI, 500 ml of abs. alcohol and 10

Card 2/4

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23412

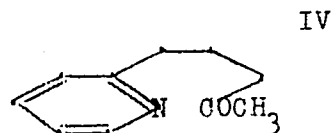
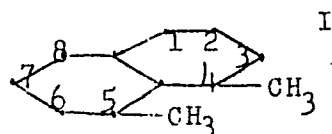
Abstract: the solution of 6 g of II in 150 ml of CHCl_3 (temperature below 40°) and allowed to stand at 20° for 5 days, POCl_3 and CHCl_3 are distilled off in vacuo, the residue is treated with water, and III is obtained, yield 72%, melt. p. $198-200^\circ$ (from CH_3COOH). -- P. Sokov

Card 4/4

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61103.

Abstract:



60%, boiling point 142 to 146°/0.25 mm. The alkaline product of III saponification and decarboxylation (6 hours of boiling with concentrated HCl) is extracted with ether and 1-[6'-methylpyridyl-(2')]-pentanone-4 (IV) is obtained, yield 90%, boiling point 92 to 94°/10 mm; semiplatinate - dissociation point 185 to 186°. I is prepared

Card 2/3

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CZECHOSLOVAKIA / Organic Chemistry. Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61103.

Abstract: by the hydrogenation of 0.06 mole of IV in 120 ml of absolute alcohol (4 g of Raney's catalyst, 150 atm, 200 to 220°) with the evaporation of the acidified filtrate until dry and extraction of the alkaline residue with ether, yield 61%, boiling point 53 to 55°/8 mm; semichloroplatinate - dissociation point 185 to 186°, picrate - melting point 156 to 158°. See report X in RZhKhim, 1958, 28943.

Card 3/3

Sezo, 1.

CZECHOSLOVAKIA / Organic Chemistry: Natural Substances G
and Their Synthetic Analogues.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61104.

Abstract: tracted with ether, and 2-(3'-oxy-1'-methoxymethylpropyl)-pyrrolidine (V) is obtained, yield 78%, boiling point 153 to 157°/9 mm, $n_D^{22} = 1.4816$. If water-cooled V is poured into glacial CH_3COOH saturated with HBr gas, the OH group will be substituted with Br with a simultaneous breaking of the ester bond and formation of 2-(3'-bromo-1'-oxymethylpropyl)-pyrrolidine; at the heating of the later (having distilled off CH_3COOH) with 10 g of NaOH in 50 ml of water (100°, 2 hours), HBr splits off with the formation of I; the yield of I from the CHCl_3 extract is 90%, boiling point - 141 to 144°/9 mm, $n_D^{22} = 1.4975$; picrate - melting point 190 to 191° (from alcohol); a little amount of picrate, melting point 173 to 174°, was separa-

Card 3/4

CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77820.

Author : Dubravkova, L., Jezo, I., Sefcovic, P., and
Voticky, Z.

Inst : ~~Not given~~ -- SLOVENSKA AKADEMIE VIED, PRATA, CZECHOSLOVAKIA.

Title : Esters of N,N-Disubstituted Aminoethanol.

Orig Pub: Chem Zvesti, 12, No 4, 252-255 (1953) (in Slovak
with summaries in German and Russian).

Abstract: In the course of the investigation of compounds
containing the N-C-C-OH group, some of which have
a hypotensive action, the authors have synthesized
compounds having the general formula $RCOOCH_2CH_2$
 $N(CH_3)(CH_2)_5N(CH_3)_2$, where R = 3,4,5-trimethoxy-
phenyl (I), and 4-pyridyl (II). Compounds of

Card 1/5

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CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77820.

Abstract: ing water bath and then for 8 hrs at 120°; the mixture is diluted with 200 ml water, made weakly alkaline with 50% KOH, and the product is salted out with solid K₂CO₃ and extracted with CHCl₃; HOCH₂CH₂N(CH₃)(CH₂)₄CN is obtained, yield 51%, bp 159-161°/11mm. 60 gms of the latter substance are dissolved in 440 ml abs alc saturated at 0° with NH₃ gas and the solution is hydrogenated over Raney Ni at 150° and at an initial pressure of 130 atm, giving HOCH₂CH₂N(CH₃)(CH₂)₅NH₂ (IV), yield 86%, bp 139-140°/11mm, n_D²⁰ 1.4735. 35 gms IV are added with cooling to 165.8 gms of 90% HCOH followed by the addition of 61 gms of 35% HCHO. The mixture is heated for 10 hrs [temp?], 55 ml

Card 3/5

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JE 20

COUNTRY : Czechoslovakia
 CATEGORY :
 Abs. Jour. : RZKhim., No. 20 1959, No. 72089
 AUTHOR : Jaso I.; Tihlarik K.
 INST. : Not given
 TITLE : High Temperature Reaction of Allyl Alcohol with Ammonia
 ORIG. PUB. : Chem. Zvesti, 1958, 12, #9, 558-569.

ABSTRACT : The effect of temperature, catalyst, ratio and the feed rate of reactants on the yield of pyridine bases resulting from the reaction of allyl alcohol (I) with NH_3 was studied. At optimum conditions, that is when reaction was conducted in a copper tube over Pd/Al_2O_3 at 310° , using a 1:3 ratio of I: NH_3 and a feed rate of 20.5 g/hr of (I) (30 grams of catalyst), 36.19% of pyridine bases were obtained. The latter consisted of 59.7% β -picoline, 15.8% 3,5-dimethylpyridine, 7.32% 3,5-dimethyl-4-ethyl-pyridine and 17.1% of tars (nondistillable substances). The yield of distillates was decreased to 7.9%, when the same catalyst was used for 30 hours.

CARD:

1/1

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— D. Vitkovskiy

COUNTRY : Czechoslovakia
 Category : Organic Chemistry. Natural Compounds and Their Synthetic Analogs.
 Abs. Jour. : Ref Zhur-Khimiya, No.12, 1959, No. 42535
 Author : Dubravkova, L., Jaso, I., Šefčović, P., *
 Institut. : Not given
 Title : The Synthesis of Some Alkaloid Derivatives.
 XIV

Orig. Pub. : Chem. zvesti, 1958, 12, No.8, 459-463

Abstract : A synthesis of a lycotonine (1-oxymethyl-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline) is described. The acylation of homoveratrine amine (I) by benzyloxycetic acid (II) in decalin (with the elimination of the formed water by way of an azeotropic mixture with the solvent) gave N-benzyloxycetyl derivative of I with a 91% yield, m.p. $68-69^\circ$ (from water);

* Votický, Z.

Card:

1/5

Country : Czechoslovakia
Category : Organic Chemistry. Natural Compounds and Their Synthetic Analogs.
Abs. Jour. : Ref. Zhur-Khainits, No. 12, 1968, No. 48595

Author :
Institut. :
Title :

Orig Pub. :

Abstract : 32-33° (from petroleum ether). The hydrochloride, m.p. 208-209° (from alcohol-ether); the chloroplatinate, m.p. 191-193° (decomposition; from water). Quantitative hydrolysis by boiling dilute HCl 1 : 1 yielded (+)-calyptomine, m.p. 135-136°; other derivatives made were: hydrochloride, m.p. 192° (from methanol-ether solution); the perchlorate, m.p. 174° (from water); the picrate, m.p. 162-163° (from alcohol); the chloroplatinate,

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10-11-12

3/5

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JEZO, I.; ~~XXXXXXXXXX~~.

TECHNOLOGY

Periodical CHEMICKE ZVESTI. Vol. 12, no. 9, Sept. 1958.

JEZO, I.; TIHLARIK, K. Reaction of allyl alcohol with ammonia under higher temperatures.
p. 558.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

Distr: 4E2c(J)/4E3d 7

The reaction of allyl alcohol with ammonia at higher temperatures. J. J. J. and K. Tihlárík (Chem. ústav, Slovenská akad. vied Bratislava, Czech.). Chem. listy 12, 558-60(1958)(German summary).—The reaction of allyl alc. (I) with gaseous NH_3 (II) at higher temps. by applying a catalyst of an oxide-carrier, salt, and metal-carrier type was studied. The relation of yield of pyridine bases on incoming speed of I, the mol. ratio of I and II, reaction temp., the type and aging of catalyst was detd. At 310° with the incoming speed of I 20.5 g. per hr. on 50 g. $\text{Pd-Al}_2\text{O}_3$ catalyst in an iron tube, 36.10% basic portion (III) was produced. III was composed of 59.70% β -picoline, 15.80% 3,5-dimethylpyridine, 7.33% 3,5-dimethyl-4-ethylpyridine and 17.10% undistd. residue. The best results were obtained in a copper tube with the incoming speed of I 20.5 g. per hr. on 30 g. $\text{Pd-Al}_2\text{O}_3$ catalyst with a 1:3 molar ratio of I to II.

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JEZO, I.

Reaction of diacetone alcohol with ammonia at higher temperatures. I. Jezo and K. Tihlarik (Slovenska akadem. vied. chem. ustav, Bratislava, Czech.). Chem. zvesti 13, 98-102 (1960) (German summary). — By reaction of diacetone alc. with NH_3 gas at 310° with Pd-C catalyst were prepd. 10.4% 2,4,6-trimethylpyridine, 7b, $187-70^\circ$, n_D^{20} 1.4910 [picrate m. 153° (EtOH); 0.5H $_2$ PtCl $_6$ salt m. $221-2^\circ$ (decompn.) (EtOH); H $_2$ AuCl $_4$ salt m. $111-12^\circ$ (EtOH); H $_2$ Cu $_2$ HgCl $_6$ salt m. 150° (EtOH); picrolonate m. 227° (decompn.) (EtOAc)], and 3% 3-iso-Pr deriv., b $_p$ $82-3^\circ$, m. $53-60^\circ$ (Et $_2$ O) [picrate m. 194° (decompn.) (EtOH); 0.5H $_2$ PtCl $_6$ ·H $_2$ O salt m. $210-18^\circ$ (decompn.) (60% EtOH); 0.5H $_2$ PtCl $_6$ salt m. 231° (decompn.) (EtOH); picrolonate m. $253-4^\circ$ (decompn.) (EtOH)]. Jan Micks

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153

22

COUNTRY : CZECHOSLOVAKIA
 DISCIPLINE : Organic Chemistry. Natural Substances and
 Their Synthetic Analogs
 ABS. JOUR. : RZKhim., No. 1 1960, No. 1362
 AUTHOR : Baber, K.; Jozo, I.; Kalac, V.; Karvas, M.
 INST. : -
 TITLE : Synthesis of Some Alkaloid Derivatives. XVI.

INFO. PUB. : Chem. zvesti, 1959, 13, No 3, 163-169

ABSTRACT : The synthesis of 1-methylpyrrolisidine deriva-
 tives was carried out, during which the stage
 of ring closure was effected under conditions
 approximating physiological ones. The realiza-
 tion of the synthesis appeared to verify Schöpf's
 hypothesis (Schöpf, C., Angew. Chemie, 1949, 61,
 32) regarding the biogenesis of alkaloids from
 substances of the general formula $\text{CHO}(\text{CH}_2)_x\text{NH}-$
 $(\text{CH}_2)_x\text{CHO}$; the correctness of this hypothesis

CARD: 1/6

G-45

COUNTRY :
CATEGORY :

G

ABS. JOUR. : RZhKhim., No. 1 1960, No. 1362

AUTHOR :
TITL. :
FILE :

ORIG. PUB. :

ABSTRACT : pH > 5, II does not cyclize, and at pH < 4 the
polymerization products of II are formed. The
initial $\text{Cl}(\text{CH}_2)_3\text{CHO}$, b.p. $52-54^\circ/12 \text{ mm}$, was
synthesized by oxidation of $\text{Cl}(\text{CH}_2)_4\text{OH}$ with
 CrO_3 in CH_3COOH . The mixture of 0.05 mole of
Ia, 0.5 mole of Ib, 0.05 mole of KI and 0.1
mole of potash in 150 ml of abs. alcohol is
boiled for 20 hours, diluted with water, and

CARD: 2/6

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Jezo, Ivan

PERSONAL DATA

Country of Birth: Czechoslovakia

Current Residence:

Birthdate:

Address: Bratislava, Čestmíra Štepl, No 7, Júl 60, p 513

Education: Engineering Ph D; Candidate of Chemical Sciences
Affiliation: Department of Chemistry of Natural Substances at
 the Chemical Institute of the Slovak Academy of
 Sciences in Bratislava.
Notes: Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-
 isochinoline with Hydrazine Hydroxide," Source.

Education: Engineering Engineer
Affiliation: Department of Chemistry of Natural Substances at the
 Chemical Institute of the Slovak Academy of
 Sciences in Bratislava.
Notes: Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-
 isochinoline with Hydrazine Hydroxide," Source.

Education: Engineering Candidate of Chemical Sciences
Affiliation: Department of Chemistry of Natural Substances at
 the Chemical Institute of the Slovak Academy of
 Sciences in Bratislava.
Notes: Co-author of "On the Reaction of 1-chloro-6,7-dimethoxy-
 isochinoline with Hydrazine Hydroxide," source.

Bel

BABOR, Karel, inz., C.Sc.; JEZO, Ivan, dr., inz., C.Sc.; KALAC, Vladimir, inz., C.Sc.; KARVAS, Milan, inz.; TIHLARIK, Karel, inz.

Synthesis of certain alkaloid derivatives. Part 20. Chem zvesti 15 no.10: 721-724 0 '61.

1. Oddelenie chemie prirodných látok Chemickeho ústavu Slovenskej akadémie vied, Bratislava. Authors' address: Bratislava, Mlynske nivy 37, Chemický ústav Slovenskej akadémie vied.

JEZO, Ivan, dr., inz., C.Sc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt.2. Chem zvesti 17 no.4:255-264 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej akademie
vied, Oddelenie chemie sacharidov, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr., inz., C.Sc.

Aminolysis of saccharose. Part 1. Chem zvesti 17 no.2:
126-139 '63.

1. Chemicky ustav Slovenskej akademie vied, Oddelenie chemie
sacharidov, Bratislava, Mlynske nivy 37.

BILIK, Vojtech, promovany chemik; JEZO, Ivan, dr. inz., CSc.

Some trimethylsilyl derivatives of saccharides. Chem zvesti
17 no.12:861-864 '63.

1. Geskoslovenska akademie ved, Chemicky ustav Slovenskej
akademie vied, Bratislava, Mlynske nivy 37.

JEZO, Ivan, dr. inz., CSc.; LUZAK, Ivan, inz.

Aminolysis of saccharose. Pt. 3. Chem zvesti 17 no.12:
865-883 '63.

1. Ceskoslovenska akademie ved, Chemicky ustav Slovenskej
akademie vied, Bratislava, Mlynske nivy 37.

L 1631-66

ACCESSION NR: AP5024266

CZ/0001/64/000/009/0638/0611

AUTHOR: Bilik, V. (Graduate chemist); Jozo, I. (Jezho, Y.) (Doctor, Engineer, Candidate of sciences) (Bratislava); Stankovic, L. (Stankovich, I.) (Graduate chemist) (Bratislava)

TITLE: Determination of silicon in O-(Trimethylsilyl)-derivatives of saccharides

SOURCE: Chemické zvesti, no. 9, 1964, 688-691

TOPIC TAGS: silicon, analytic chemistry, hydrolysis, organic silicon compound, carbohydrate

Abstract [Authors' German summary, modified]: Described is a method of determining silicon in some derivatives of O-(trimethylsilyl)saccharides, O-(trimethylsilyl)polysaccharides, N-(trimethylsilyl)-amines, and trimethylsilyl esters of organic acids. The method is based on a hydrolytic decomposition of substances. Hydrolysis products (trimethylsilanol and hexamethylsiloxane) are brought by an oxygen flow to a combustion tube where they are quantitatively burned to silicon dioxide.

Card 1/2

L 1631-66

ACCESSION NR: AP5024266

"We thank ⁴⁴A. Sedlak for the determination of some physico-chemical constants of studied compounds." Orig. art.has: 1 figure, 1 table. 7

ASSOCIATION: Chemicky ustav Slovenskej akademie vied, Oddelenie chemie mono-
sacharidov, Bratislava (Department of the Monosaccharides Chemistry, Slovak
Academy of Sciences) 44

SUBMITTED: 28Sep63

ENCL: 00

SUB CODE: 00, 00

NR REF SOV: 001

OTHER: 006

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Card 2/2

L 1606-66

ACCESSION NR: AP5024490

CZ/0043/64/000/011/0837/0851

AUTHOR: ⁴⁴⁵⁵Jezo, I. (Yezho, Y.) (Doctor, Engineer, Candidate of sciences) (Bratislava);
Luzak, I. (⁴⁴⁵⁵Luzhak, Y.) (Engineer) (Bratislava)

TITLE: ⁴⁴⁵⁵Aminolysis of sucrose (V). Reaction of sucrose with aqueous solution of ethanolamine

SOURCE: ¹⁸Chemicke zvesti, no. 11, 1964, 837-851

TOPIC TAGS: carbohydrate, aqueous solution, ethanol, amine, reaction mechanism

ABSTRACT: Aminolysis of sucrose by water solutions of ethanol-amine was conducted at elevated temperatures. In the reaction mixture the following were identified and isolated: ethylene-diamine, 1-ethyl piperazine, 1-(2-hydroxyethyl)-2-methyl-1,4,5,6-tetrahydropyrazine, 2-methyl-4-(2-hydroxyethyl)-1,4,5,6-tetrahydropyrazine, 1-(2-hydroxyethyl)-2-methyl-2-imidazoline, 1,4-bis(2-hydroxyethyl)-2-methyl-1,4-dihydropyrazine, and a substance with an empirical formula $C_{11}H_{21}N_3O_2$. The formation of these

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L 1606-66

ACCESSION NR: AP5024490

substances is explained by a suggested reaction mechanism that applies at elevated temperatures. "We thank A. Puffler and O. Rau for the elementary analyses; R. Justh for the measurement of infrared spectra; A. Sedlak for determination of some physico-chemical constants of the examined materials. Z. Matika participated in the experimental work." Orig. art. has: 5 formulas, 4 graphs, 3 tables.

ASSOCIATION: Chemicky ustav Slovenskej akademie vied, Oddelenie chemie monosacharidov, Bratislava (Department of Chemistry of Monosaccharides, Institute of Chemistry, Slovak Academy of Sciences)

SUBMITTED: 15Jun64

ENCL: 00

SUB CODE: OC, GC

NR REF SOV: 000

OTHER: 013

JPRS

Card 2/2

JEZO, I.

Professor Eng. Mikulas Furdik at sixty. Chem listy 59 no.5:
638-639 My '65.

BILIK, Vojtech, prom. chemik; BAUER, Stefan, dr. inz., C.Sc.; JEZO, Ivan, dr. inz., C.Sc.; FURDIK, Mikulas, prof. inz.

Separation of O-trimethyl derivatives of monosaccharides by gas-liquid chromatography. Chem zvesti 19 no.1:28-33 '65.

1. Chair of Organic Chemistry and Biochemistry of the Faculty of Natural Sciences of Komensky University, Bratislava, Smeralova
2. 2. Editorial Board Member, "Chemicke zvesti" (for Furdik).

1. 7711-66 EWA(j)/EWP(j)/EWA(h)-2 RM
ACC NR: AP6000910

SOURCE CODE: CZ/0043/65/000/001/0028/0033

AUTHOR: Bilik, Vojtech (Graduate chemist); Bauer, Stefan--Bauer, Sh. (Engineer; Candidate of sciences); Jazo, Ivan--Jazho, I. (Doctor; Engineer; Candidate of sciences); Furdik, Mikulas (Engineer; Professor)

ORG: Department of Biochemistry of Saccharides, Chemical Institute, Slovak Academy of Sciences, Bratislava (Chemicky ustav Slovenskej akademie vied, Oddelenie monosacharidov); Department of Organic Chemistry and Biochemistry, Faculty of Natural Sciences, Comenius University, Bratislava (Katedra organickej chemie a biochemie Prirodovedeckej fakulty Univerzity Komenskeho)

TITLE: Separation of O-trimethyl-silyl derivatives and O-methyl derivatives of monosaccharides by gas-liquid chromatography

SOURCE: Chemické zvesti, no. 1, 1965, 28-33

TOPIC TAGS: carbohydrate, biochemistry, gas chromatography, chemical separation, organosilicon compound

ABSTRACT: The authors describe separation of O-trimethyl silyl derivatives from O-methyl derivatives of monosaccharides by means of gas chromatography. The anchored phase used was a polyester of 1,4-butane diol succinate. They found that elution periods of methyl analogues of trimethyl silyl ethers were a function of the anchored phase and its carrier (silica). Eng. A. Kardosova and P. Suchiansky collaborated in the work in the division of gas chromatography. Orig. art. files: 4 graphs, 1 table. [JPAS]
Card 1/2

L 7711-66

ACC NR: AP6000910

SUB CODE: 06, 07 / SUBM DATE: 20Jul64 / OTH REF: 008

Card ^m 2/2

L 31396-66

ACC NR: AP6021114

SOURCE CODE: CZ/C043/65/000/012/0000/0907

AUTHOR: ~~Jozo, Ivan--Yezho~~, I. (Docent; Doctor; Engineer; Candidate of sciences; Bratislava); ~~Luzak, Ivan--Luzhak~~, I. (Engineer; Bratislava) 28
B

ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute, SAV, Bratislava (Oddelenie chemie monosaccharidov a oligosaccharidov Chemickeho ustavu Slovenskej akademie vied)

TITLE: Aminolysis of sucrose (VI). Reaction of sucrose with water solutions of beta-aminopropionitrile at elevated temperatures

SOURCE: Chemické zvesti, no. 12, 1965, 900-907

TOPIC TAGS: chemical reaction, amine, organic nitrile compound, carbohydrate

ABSTRACT: During the reaction of sucrose with beta-aminopropionitrile in water solution at elevated temperatures a mixture of heterocyclic compounds is formed; the authors isolated and identified the following: 2-methylpyrazine, 2,5-dimethylpyrazine, 2-methyl-1,4(7)-dihydropyrazine, 4(5)-methylimidazole, and 2-methyl-4-(beta-cyanoethyl)-1,4-dihydropyrazine. At the same time the beta-aminopropionitrile is transformed to bis(2-cyanoethyl) amine. The reaction mechanisms explaining the formation of the compounds mentioned is discussed. The authors thank A. Pufflorov and O.

Card 1/2

L 31396-66

ACC NR: AP6021114

Jurikov for the elementary analysis, A. Sedlak for determining several physico-chemical constants of the examined substances. Z. Martka and P. Gregor participated in the experimental work. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUM DATE: 22Feb65 / ORIG REF: 002 / OTH REF: 001
SOV REF: 001

Card 2/2 CC

L 31333-66

SOURCE CODE: CZ/0043/65/000/012/0908/0917

ACC NR: AP6021115

AUTHOR: Jozo, Ivan--Yezho, I. (Docent; Doctor; Engineer; Candidate of sciences; Bratislava); Luzak, Ivan--Luzhak, I. (Engineer; Bratislava) 28
3

ORG: Department for the Chemistry of Mono and Oligo-saccharides, Chemical Institute, SAV, Bratislava (Oddelenie chemie monosacharidov a oligosacharidov Chemického ustavu Slovenskoj akademie vied)

TITLE: Aminoanalysis of sucrose (VII). Reaction of sucrose with water solutions of dimethylamine at elevated temperatures

SOURCE: Chemické zvesti, no. 12, 1965, 908-917

TOPIC TAGS: carbohydrate, chemical reaction, reaction temperature, dimethylamine, dicarboxylic acid, organic amide, propane, ethane, ethanol

ABSTRACT: The following substances were isolated by the authors from the reaction mixture of sucrose and dimethylamine at elevated temperatures: trimethylamine, dimethylethylamine; 2-dimethylamino-ethanol, 1,2-bis(dimethylamino) propane, 1,1,2-tris(dimethylamino) ethane; N-dimethylacetamide, N-dimethylglycol amide, N,N'-tetramethylglycinamide, and the bisdimethylamide of the cis(?)-tetrahydrofuran-2,5-dicarboxylic acid. The mechanism of the reaction is discussed. The authors thank A. Pufflerov and O. Jurikov for the elementary analysis, R. Justhov for remeasuring the infrared spectrum and A. Sedlak for determining several physico-chemical constants of the examined substances. P. Gregor participated in the experimental part. Orig. art. has:

2 tables. JPRS

SUB CODE: 07 / SUM DATE: 22Feb65 / ORIG REF: 005 / OTH REF: 023

SOV REF: 002

Card 1/1 2.2

JEZO, M., mgr inz.

Transistorized converter systems as used in aviation.
Techn lotn 19 no. 1: 12-16 Ja '64.

NOWAK, Stanislaw; JEZOWA, Liliana

Intestinal flora in the treatment of tuberculosis in children. Gruzlica
29 no.11:947-948 N '61.

1. Z I Kliniki Chorob Dzieciacych AM w Poznaniu Kierownik: prof. dr
med. T. Rafinski.

(INTESTINES microbiol)
(ANTITUBERCULAR AGENTS ther)

TABEAU, Jerzy; WOJCIKIEWICZ, Olga; SANOCKA, Irena; JEZOWA, Maria; JASTRZEBSKI, Jerzy

The clinical significance of certain excitability and conduction disturbances in the light of the statistical analysis of 30,000 electrocardiograms. Pol. arch. med. wewn. 33 no.1:39-46 '63.

1. Z I Kliniki Chorob Wewnętrznych AM w Krakowie Kierownik: prof. dr med. L. Tochowicz.

(ELECTROCARDIOGRAPHY) (STATISTICS) (HEART BLOCK)

JEZOWA, M.

The significance of the positive U-wave. Kardiol. Pol. 8 no.1:
53-56 '65

1. Z I Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie
(Kierownik: prof. dr. L. Tochowicz).

TROSKOLANSKI, Adam Tadeusz, prof. inż.; JEZOWIECKA-KABSCH, Krystyna,
mgr inż.

Calculation of fluid ejectors based on power equations. Gaz
woda techn sanit 37 no.8:251-254 Ag '63.

1. Department of Mechanics of Liquids and Gases, Technical
University, Wrocław.

YEZHOVSKA TSHEBYATOVSKA, B. [Jezowska-Trzebiatowska, B.]; VOYTSEKHOVSKI, V.
[WOJCIECHOWSKI, W.]

Magnetic properties of binuclear complexes with an oxygen bridge
in the light of the methods of valence schemes and molecular orbits.
Zhur.strukt.khim. 4 no.6:872-880 N-D '63. (MIRA 17:4)

1. Vrotslavskiy universitet, Pol'sha.

JEZOWSKA-FRZEBIATOWSKA, B.										a-1									
117 AND 120 GROUPS										118 AND 119 GROUPS									
PROCESSES AND PROPERTIES INDEX																			
<p>Complex chlorides of quadrivalent rhenium. B. JEZOWSKA-FRZEBIATOWSKA and C. JODKO (Rocz. CHEM., 1959, 19, 187-196) HReO_4 in 30% HCl and MI (24 hr. at 20° in a CO_2 atm.) yield $\text{M}_2(\text{Re}_2\text{O}_7)_2$ ($\text{M} = \text{K}, \text{NH}_4$, quinoline), together with $\text{M}_2(\text{Re}_2\text{O}_7)_2\text{OH}$ ($\text{M} = \text{K}, \text{NH}_4$, Rb, quinoline) and M_2ReCl_6.</p> <p>R. T.</p>																			
<p>438-55A METALLURGICAL LITERATURE CLASSIFICATION</p>																			
117 AND 120 GROUPS										118 AND 119 GROUPS									
117 AND 120 GROUPS										118 AND 119 GROUPS									

JEZOWSKA-TRZEBIATOWSKA, BOGUSLAWA

Poland

CA: 47:12073

with JADWIGA NAWOJSKA and MARIA WRONSKA

Univ., Wroclaw

"Quinquevalent manganese."

Roczniki Chem. 25, 405-16 (1951) (English summary)

JEZOWSKA-TRZEBIATOWSKA, B.

Compounds

JEZOWSKA-TRZEBIATOWSKA, Boguslawa: Complex Bonds of 4- and 5-rhenium,
Wroclaw: ~~Wroclawskie Towarzystwo Naukowe, 1963. 29 pp.~~ Wroclawskie Towarzystwo
Naukowe, 1963. 29 pp.

Jezowska-Trzebiatowska, B.

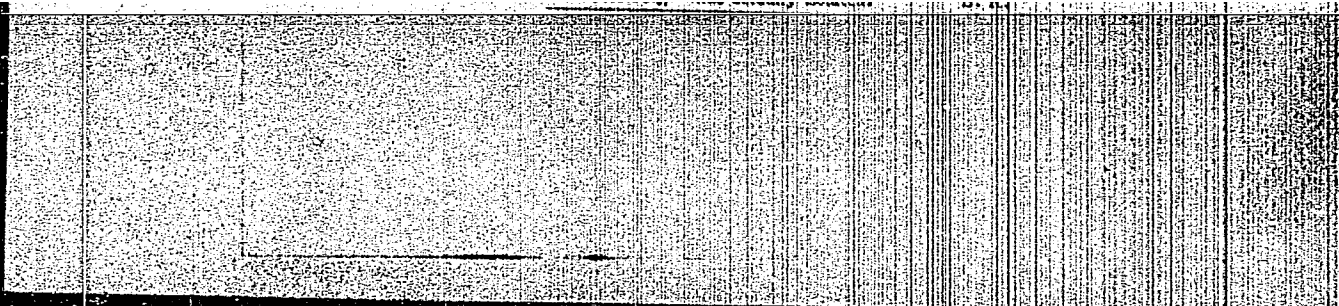
The mechanism of reduction of potassium permanganate by concentrated potassium hydroxide solution. B. Jezowska-Trzebiatowska, J. Nawolnska, and M. Wroblewski. *Bull. acad. polon. sci. Classe III*, 311-17 (1953). In the absence of reducing agents in alk. solns. of KMnO_4 , the OH^- ion acts as an electron donor and the mechanism of the reduction is as follows: (I) (a) $\text{MnO}_4^- + \text{OH}^- \rightarrow \text{MnO}_4^{2-} + \text{OH}^\cdot$, (b) $\text{MnO}_4^- + \text{OH}^- \rightarrow \text{MnO}_4^{2-} + \text{H}^\cdot + \text{O}_2$; (II) (a) $\text{MnO}_4^{2-} + \text{OH}^- \rightarrow \text{MnO}_4^{3-} + \text{OH}^\cdot$, (b) $\text{MnO}_4^{2-} + \text{OH}^- \rightarrow \text{MnO}_4^{3-} + \text{H}^\cdot + \text{O}_2$; (III) (a) $\text{MnO}_4^{3-} + \text{OH}^- \rightarrow \text{MnO}_4^{4-} + \text{OH}^\cdot$, (b) $\text{MnO}_4^{3-} + \text{OH}^- \rightarrow \text{MnO}_4^{4-} + \text{H}^\cdot + \text{O}_2$. In about 1.3M KOH , $2\text{MnO}_4^- + 2\text{H}_2\text{O} \rightarrow \text{MnO}_4^{2-} + \text{MnO}_2 + 4\text{OH}^-$. In dil. KOH (< 0.001M), $3\text{MnO}_4^- + \text{H}_2\text{O} \rightarrow 2\text{MnO}_4^{2-} + \text{MnO}_2 + 2\text{OH}^-$. The rate-deterg. step is II. Evidence for each step is given. Bernard Rubin.

(2)

The behavior and constitution of active rhenium(V) complexes. R. J. F. Jones, J. R. H. Jones, and J. W. Jones (Inst. Technol., London, England). *J. Chem. Soc. Chem. Commun.* 1964, 240-242 (1964) in English. The reduction of KReO_4 in concentrated HCl with H_2 leads to the formation of 2 new complexes, $\text{K}_2[\text{ReO}(\text{OH})\text{Cl}_2]$ and $\text{K}_2[\text{ReO}(\text{OH})\text{Cl}_3]$, which remain in mutual equilibrium. Absorption spectra of pure $\text{K}_2[\text{ReO}(\text{OH})\text{Cl}_2]$ show it to be a primary reduction product. It changes into the binuclear complex $[\text{Re}_2\text{O}_7]^{4-}$, and below 18° , the equilibrium favors this complex. Molar conductivities of both salts confirm them as 3 and 4 valent salts. Magnetic measurements by the Gouy method indicate that the hydroxychlororhenate(V) is a normal paramagnet in $\chi_M^{298} = 8.620 \times 10^{-5}$, $\chi_M^{298} = 5.610 \times 10^{-5}$, $\chi_M^{298} = 4.640 \times 10^{-5}$, $\chi_M^{298} = 3.560 \times 10^{-5}$, $\chi_M^{298} = 2.480 \times 10^{-5}$, $\chi_M^{298} = 1.400 \times 10^{-5}$.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620011-5



APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619620011-5"

~~TRZEBIATOWSKA, JEZOWSKA~~
JEZOWSKA-TRZEBIATOWSKA, B.
POL.

Kinetics of permanganate reduction by hydroxyl ions.
B. Jezowska-Trzebiatowska, J. Nawojka, and M. Wron-
ska. *Bull. Acad. Polon. Sci., Classe III, 2, 447-461 (1957).*
The successive reductions $Mn(VII) \rightarrow Mn(VI) \rightarrow Mn(V)$
 $\rightarrow Mn(IV)$ were studied kinetically to establish the mech-
anism of each step. Excess OH^- concn. was used to give
solns. of const. ionic strength and to enable the reaction to
be handled as pseudounimol. Reaction progress was
deterd. iodometrically. The order of each of the consecutive
reactions was deterd. by the half-life method. The mecha-
nism of the $Mn(VII) \rightarrow Mn(VI)$ step is given by: $MnO_4^- + OH^- \rightleftharpoons MnO_4^{2-} + \cdot OH$; $MnO_4^{2-} + \cdot OH \rightleftharpoons MnO_4^- + HO_2^\cdot$; $MnO_4^- + HO_2^\cdot \rightleftharpoons MnO_4^{2-} + O_2 + H_2O$; $MnO_4^{2-} + O_2 \rightleftharpoons MnO_4^- + O_2^\cdot$. The reduction $Mn(VI) \rightarrow Mn(V)$
follows the same general pattern. The mechanism of the
reduction $Mn(V) \rightarrow Mn(IV)$ is given by: $MnO_4^{2-} + OH^- \rightleftharpoons MnO_4^{3-} + \cdot OH$; $MnO_4^{3-} + \cdot OH \rightleftharpoons MnO_4^{2-} + HO_2^\cdot$; $MnO_4^{2-} + HO_2^\cdot \rightleftharpoons MnO_4^- + O_2 + H_2O$; $MnO_4^- + O_2^\cdot \rightleftharpoons MnO_4^{2-} + O_2$. Cf. C.A. 48, 979hc. Howard Nechamkin.

TRZEBIAŁOWSKA - J
JEZOWSKA-TRZEBIAŁOWSKA, B.

✓ Peroxy complexes as intermediate states in the electron-transfer reaction. D. Jezowska-Trzebiatowska and H. Przywaska, *Bull. Acad. Polon. Sci., Classe II*, 3, 429-432 (1965) (in English); cf. *C.A.* 48, 13518b; 47, 9843f. The oxidizing action of H_2O_2 on $K_2[Re_2O_7]$ was studied by optical-d. measurements on the blood-red solns. formed. Plots of optical d. vs. the mol. ratio of $K_2[Re_2O_7]$ to H_2O_2 showed peaks at a ratio of 1/3 at 470, 500, 530, and 570 m μ . Solns. contg. const. aunts. of H_2O_2 and varying aunts. of $K_2[Re_2O_7]$ showed max. optical d. at a ratio of 1/3; thus only a single complex (I) exists in solu. Increase in the ratio caused a gradual decrease in optical d., suggesting that I reacts with excess $K_2[Re_2O_7]$ and undergoes decompn. At const. H_2O_2 and increasing $K_2[Re_2O_7]$ concns. the optical d. became const. at a ratio of 1/3; further addn. of H_2O_2 caused no further change and corresponded to complete binding of $[Re_2O_7]^{4-}$ (Ia). The stability const. of I is 1.02×10^4 . Salts corresponding to the following compns. were pptd. from solns. of max. extinction: (quinoline-II) $_4$ $[Cl_2ReO_2ReCl_2]$ (II), and $C_8H_8N_2[Cl_2ReO_2ReCl_2]$ (III). The quadrivalent state of Re was established by oxidation of II and III with excess Fe alum., followed by MnO_4^- titration. In both cases approx. 2 equivs. of MnO_4^- were required/g. atom of Re. I gave Ia reversibly, indicating that 2 bridging O atoms act as oxidizing agents. This is supported by the fact that the soln. of $K_2[Re_2O_7]$ with H_2O_2 (in 1/3 mol. ratio) required approx. 6 equivs. of MnO_4^- /g. atom of Re at max. extinction. II and III dissolved in acid solns. giving the characteristic red solns., which turned yellow, reversibly, on raising the pH above 2.2. This may be related to the equil.: $[Re_2O_7]^{4-}$ (yellow) \rightleftharpoons $4H^+$ \rightleftharpoons $H_4[Re_2O_7]$ (red). The solid salts and their acid solns. undergo slow decompn.: $[Re_2O_7]^{4-} \rightarrow 2Re^{IV} + O_2$. Slowly, an autoxidation-reduction process takes place in which the O acts as the oxidizing agent, and the Re atoms act as the reducing agent. $K_2[Re_2O_7]$ is diamagnetic, owing to spin-coupling between paramagnetic Re nuclei. II is paramagnetic (moment ≈ 3.5 Bohr magnetons), indicating less spin-coupling due to increased π interaction between the Re atoms through the peroxide linkage. It is concluded that in solu. a complex is formed: $H_4[Re_2O_7] + 2H_2O_2 \rightleftharpoons H_4[Re_2O_7] \cdot 2H_2O_2 + 2H_2O$. Two mols. of H_2O_2 can be joined by H linkage with O atoms of the peroxide bridge. In the solid state, however, this exists only as peroxide bridge, which slowly absorbs electrons and thus causes an increase in the Re oxidation state. The role of the bridging atoms presumably is the same as the complex in solu.

atom of Re. I gave Ia reversibly, indicating that 2 bridging O atoms act as oxidizing agents. This is supported by the fact that the soln. of $K_2[Re_2O_7]$ with H_2O_2 (in 1/3 mol. ratio) required approx. 6 equivs. of MnO_4^- /g. atom of Re at max. extinction. II and III dissolved in acid solns. giving the characteristic red solns., which turned yellow, reversibly, on raising the pH above 2.2. This may be related to the equil.: $[Re_2O_7]^{4-}$ (yellow) \rightleftharpoons $4H^+$ \rightleftharpoons $H_4[Re_2O_7]$ (red). The solid salts and their acid solns. undergo slow decompn.: $[Re_2O_7]^{4-} \rightarrow 2Re^{IV} + O_2$. Slowly, an autoxidation-reduction process takes place in which the O acts as the oxidizing agent, and the Re atoms act as the reducing agent. $K_2[Re_2O_7]$ is diamagnetic, owing to spin-coupling between paramagnetic Re nuclei. II is paramagnetic (moment ≈ 3.5 Bohr magnetons), indicating less spin-coupling due to increased π interaction between the Re atoms through the peroxide linkage. It is concluded that in solu. a complex is formed: $H_4[Re_2O_7] + 2H_2O_2 \rightleftharpoons H_4[Re_2O_7] \cdot 2H_2O_2 + 2H_2O$. Two mols. of H_2O_2 can be joined by H linkage with O atoms of the peroxide bridge. In the solid state, however, this exists only as peroxide bridge, which slowly absorbs electrons and thus causes an increase in the Re oxidation state. The role of the bridging atoms presumably is the same as the complex in solu.

Rp G. Rie

WZEBISTOWSKA - JERZOWSKA, Bogusław

ch / Polarographic reduction of hexamanganate. Jan. 1952 and Bogusław Jerzowski-Tychocki (Inst. Pol. Wrocław, Poland). *Polish Chem.* 29, 182-91 (1955) (English summary).—Two kinds of polarographic curves were obtained by reduction of Na_2MnO_4 at the dropping Hg cathode in concd. solns. of NaOH. With greater than 18 mole/l. NaOH, Mn^{6+} was reduced to Mn^{4+} at -0.78 v. (P.E.). In 8 to 18 moles/l. NaOH the reduction proceeded from Mn^{6+} to Mn^{4+} to " Mn^{5+} " to Mn^{4+} . Addn. of a small amt. of EtOH made the 3 waves disappear, giving rise to a new wave in the region of more neg. potentials corresponding to reduction of Mn^{6+} to Mn^{4+} and having a height equal to that of the 3 previous waves combined. The "water-reduction" wave did not appear in concd. solns. of NaOH and the low O-reduction wave was disregarded. P. 13

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JEZOWSKA-TRZEBIATOWSKA, B.

Distr: 4E3b/4E2c/4E3c 2 cys/4E3d

The peroxy compounds of rhenium. B. Jezowska-Trzebiatowska and H. Przywarska (Univ. Wrocław, Poland). *Congr. intern. chim. pure et appl.*, 16^e, Paris 1957, *Mém. sect. chim. minérale* 843-51 (Pub. 1958); cf. C.A. 52, 147a.—Oxidn. of μ -oxochlororhenate with iodate, bromate, or other agents yields the red peroxy anion $(\text{Re}_2\text{O}_7\text{Cl}_6)^{4-}$, stability const. 1.02×10^{14} . Salts of the anion with Cs, Rb, and quinuoline were prepd. and the paramagnetism of the quinuoline salt was measured. The mole ratios of oxidant to μ -oxochlororhenate are 2:1 for all except H_2O_2 which has a 3:1 ratio because of a coordination complex with H_2O_2 as an intermediate; oxidn. with H_2O_2 or air in the presence of a nitrate catalyst is slower than the action of other oxidants. The peroxy anion decomps. readily on standing to the μ -oxochlororhenate, and is probably best described as a pseudoperoxide. J. F. Phillips

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1-99(NB)
5

POLAND / Inorganic Chemistry. Complex Compounds. C-1

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 703.

Author : Jezowska-Trzebiatowska, B.; Pajdowski, L.

Inst : Not given.

Title : The Polynuclear Complexes of Trivalent Vanadium.
I. The Complexes of Trivalent Vanadium with Chloroacetic Acid.

Orig Pub: Roczn. chem., 1957, 31, No 3, 769-781.

Abstract: The WCl_3 -- $ClCH_2COOH$ system was investigated by an optical method of continuous changes and the method of pH measurement. The presence of three and two nuclear complex ions were shown to exist in solution. In the solid state the complex compounds having the general formula $[V_3(ClCH_2COO)_6(OH)_2]X$ were separated, where $X = ClCH_2COOH, ClO_4$ and compounds $[V_2(ClCH_2COO)_4(OH)_2]$, similar to the known complexes of Cr, Fe and Ru. -- Author's resume.

Card 1/1

J E Z L U S K A - T R Z E B I A T O W S K A

Country : Poland C
 Category : Inorganic Chemistry - Complex Compounds
 Abs. Jour : RZhKhim., No 13, 1959 45333
 Author : Jegowska-Trzebiatowska, B., Bartecki, A.,*
 Institut. : Not given
 Title : Investigation of the Chemistry of Hexavalent and
 Quadrivalent Uranium in Organic Solvents
 Orig. Pub. : Nukleonika, 3, Spec No, 39-58 (1958)
 Abstract : The authors have investigated the behavior of
 $UO_2(NO_3)_2 \cdot 6H_2O$ (I) in organic solvents (C_2H_5OH ,
 acetone, methyl ethyl ketone, methyl isobutyl
 ketone, acetylacetone, 1,4-dioxane, acetonitrile,
 formamide, butylisoamylphosphates) by the methods
 of spectrophotometry, solubility, and electric
 conductivity. It is shown that I is a very weak
 electrolyte in organic solvents. The absorption
 spectra (360-500 $m\mu$) of I in the above-indicated
 organic solvents are described; all of the spectra

Card: 1/4 * Przywarska, H., Chmielowska, M., Mikulski, T.
 Bukietynska, K., and Rakolowicz, W.

Country : Poland C
 Category : Inorganic Chemistry - Complex Compounds
 Abs. Jour : RZhKhim., No 13, 1959 45333
 Author :
 Institut. :
 Title :
 Orig. Pub. :
 Abstract : show a marked fine structure. The authors also
 discuss the formation of complexes involving I
 and molecules of organic solvents. The kinetics
 of the photochemical formation of $UO_4 \cdot 2H_2O$ (II)
 in ether solutions of I saturated with water when
 a stream of O_2 is passed through the solution at
 25° and the latter is irradiated with light from
 a mercury lamp. The following mechanism is
 proposed for the formation of II which under the
 conditions indicated follows zero-order kinetics:

Card: 2/4

POLAND / Inorganic Chemistry. Complex Compounds.

C

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 7757.

Author : Jezowska-Trzebiatowska B., Wajda, S.

Inst : POLISH Academy of Sciences.

Title : The Diamagnetic Oxo-oxalatorhenates.

Orig Pub: Bull. Acad. polon. sci. Ser. sci. chim., geol.
et geogr., 1958, 4, No 4, 217-221, XVII.

Abstract: Mixture of ReO_2 , $\text{H}_2\text{C}_2\text{O}_4$ and $\text{K}_2\text{C}_2\text{H}_4$, in the molecular proportions of 1 : 3 : 1, was heated for 70 hours; after addition of alcohol (to 55%) there separated a brown powder of $\text{K}_4\text{Re}_2(\text{OH})_6(\text{C}_2\text{H}_4)_2\text{O}_7$ (I); after 24 hours following increase of alcohol concentration in the filtrate to 80% there separated olive-green crystals of $\text{K}_4\text{Re}_2(\text{OH})_2(\text{C}_2\text{O}_4)_4\text{O}_7$ (II). From solution of II in

Card 1/2

JEZOWSKA-TRZEBIATOWSKA, B.

POLAND/Inorganic Chemistry - Complex Compounds

C

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30757

Author : Jezowska-Trzebiatowska, B, Przywarska, H.

Inst : Polish Academy of Sciences

Title : Oxygen-Carrying Capacity of Binuclear Rhenium (IV) Complexes

Orig Pub: Bull Acad Polon Sci, Ser Sci Chim, Geol, et Geograph, 1958, No 6, 349-354

Abstract: The authors have made continuous spectrophotometric measurements on the reaction of $\angle \text{Re}_2\text{OCl}_{10}^{7-}$ (I) with a number of oxidizers. It has been found that 1 mol of I adds 1 gm-atom of O. The peroxy complex $\angle \text{Re}_2\text{O}_2\text{Cl}_{10}^{7-}$ (II) which is formed is unstable and is completely decomposed after 12 hrs; in the course of the

Card 1/3

58

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.

The absorption spectra of uranyl nitrate in some organic solvents.
In English. Bul Ac Pol chim 6 no.9:567-574 '58. (EPAI 9:6)

1. Department of Inorganic Chemistry, Wroclaw University.
Institute of Physical Chemistry, Polish Academy of Sciences.
Presented by W. Trzebiatowski.

(Uranyl nitrate)	(Absorption spectra)
(Solvents)	(Organic compounds)

B. JEZOWSKA-TRZEBIATOWSKA

1958

Kinetics of the reaction between oxochlororhenate(IV) and molecular oxygen catalyzed by nitrates. B. Jezowska-Trzebiatowska and H. Przywarska (Univ. Wrocław, Poland). *Bull. Acad. Polon. Sci., Ser. Sci., Chim., geol. et geogr.* 6, 611-16 (1958) (in English); cf. *C.A.* 52, 19003d. The reversible oxidation with gaseous O from air, of K oxochlororhenate (I) to the peroxo compd. was studied at 2.5, 12, and 13°. I (10^{-4} mole) was dissolved in 50 ml. 2N HCl, about 10^{-3} mole KNO₃ was added as catalyst, the soln. filled with H₂O to 100 ml., and optical ds. at 408 mμ were examd. at time intervals. The soln. was stirred vigorously in contact with air. Data fitted the equation $dx/dt = k[KNO_3](a-x)^{2.5}$. Activation energy was 10.62 cal. A 3-stage mechanism is suggested, and the derivation of the kinetic equation is outlined.

J. Stecki

~~BOGUSŁAWA JEZOWSKA-TRZEBIATOWSKA~~, B.

Distr: AERC(1)

✓ Polynuclear vanadium(III) complexes. II. Structure of vanadium(III) complexes with monochloroacetic acid, Bogusława Jezowska-Trzebiatowska and Lech Pajdowski (Univ. Wrocław, Poland). *Roczniki Chem.* 32, 1061-72 (1958) (English summary); cf. *C.A.* 52, 3588c.—Only one OH group can be replaced in soln. by an NH_2 mol. in the complex $\text{V}_2(\text{CICH}_2\text{COO})_2(\text{OH})_2 \cdot 4\text{H}_2\text{O}$ (I). The mol.-wt. detus. by dialysis confirmed the trinuclear structure of I. Potentiometric titration showed that NH_2 , but not H_2O takes the place of the OH group. The magnetic moment of I is 2.80 B.M., whereas for the complex with NH_2 , it is 2.77 B.M./atom at 293°K.; this indicates identical symmetry of V in both complexes. The configurations corresponding to Werner's and Kuntz's formulas are extreme cases, whereas in soln. a kind of tautomerism occurs which depends on pH and concn. New configurational formulas are suggested. The lowering of magnetic moment of trinuclear Fe complexes (II) in soln. is attributed to the presence of OH bridges in tautomeric form. The explanation of Werbel, *et al.* (*C.A.* 38, 6941) is criticized. Crystn. of II would require considerable deformation of structure; therefore, in the solid state only Werner's tautomeric form can exist. A. Kreglewski

5
3/11/58

POLAND/Optics - Spectroscopy.

K

Abs Jour : Ref Zhur Fizika, No 1, 1960, 2154

Author : Jezowska-Trzebralowska, B., Bartecki, A.

Inst : The University, Wroclaw; Institute of Physical Chemistry, Polish Academy of Sciences.

Title : The Absorption Spectra of Uranyl Nitrate in Some Organic Solvents

Orig Pub : Bull. Acad. polon. sci. Ser. sci. chim., geol. et geogr., 1958, 6, No 9, 567-574, IL-L

Abstract : Absorption spectra were measured of solutions of hexahydrate uranyl nitrate in water (I), dioxane (II), acetone (III) methyl ethyl ketone (IV), methyl isobutyl ketone (V), tributyl phosphate (VI), acetone nitrile (VII), formamide (VIII) and acetyl acetone (IX) in the range from 360 to 500 millimicrons, The

Card 1/3

POLAND/Optics - Spectroscopy.

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619620011-5"

Abs Jour : Ref Zhur Fizika, No 1, 1960, 2154

spectrum of solutions I -- VIII consists of a broad-band with a clearly pronounced vibrational structure and, apparently, corresponds to the forbidden transition of the electrons of the added end on the 5 f orbit of uranium. The position of the maxima of the vibrational bands and the corresponding coefficients of absorption ϵ (mole⁻¹ cm⁻¹ liter) are tabulated. In III -- VIII the vibrational structure is less sharply pronounced than in I -- II, and a bathochromic shift occurs in the vibrational bands by approximately 10 millimicrons. The similarity between spectra I -- VII shows that in the solution, the uranyl nitrate exists in the form $UO_2(H_2O)_4 \cdot (NO_3)_2$ or

$[UO_2(H_2O)_4(NO_3)_2]$, where the nitrate groups can

be partially replaced by molecules of the solvent.

Card 2/3

JEZOWSKA-TRZEBIATOWSKA, B.

Reduction mechanism and electron structure of oxycyanorhenate, B. Jezowska-Trzebiatowska and J. Danowska (Univ. Wrocław, Poland). Z. Physik. Chem. (Leipzig) 212, 29-39 (1959).—By aid of the polarographic redn. of $\text{K}_2(\text{ReO}_4\text{CN})_4$, the electron no. involved in the cathode process was calcd. from the Ilkovic equation and detd. by polarographic microcoulometry. With an excess of CN^- ions the redn. leads directly to Re^{II} complexes. With redn. in a KCl soln, Re^- ions were obtained. The results of the electrochem. method were confirmed chemically by redn. with Na amalgam in which Re^+ complexes were obtained. Friedrich Bpstein.

2929 (v/B)

AE20
1-5/71 ID

292

COUNTRY : Poland
 CATEGORY :
 ABS. JOUR. : RZKhim., No. 21 1959, No. 74250
 AUTHOR : Jezowska-Trzebiatowska, B. and Przywarska, H.
 INST. : Polish Academy of Sciences
 TITLE : Kinetics of the Reaction Between Oxochlororhenate (IV) and Molecular Oxygen Catalyzed by Nitrates
 ORIG. PUB. : Bull Acad Polon Sci, Ser Sci Chim, Geol et Geograph, 6, No 10, 611-615, LIII-LIV (1959)
 ABSTRACT : The kinetics of the addition of molecular O_2 to $[Re_2OCl_{10}]^4-$ (I) with the formation of a red peroxide complex $[Re_2O_2Cl_{10}]^4-$ (II) in the presence of NO_3^- have been studied in acid medium at 2.5-13° by the colorimetric method. The reaction is reversible; when pure N_2 is passed through the solution obtained, II is converted back to I. The reaction rate is first order in the concentration of I and directly proportional to the concentration of NO_3^- . The activation

CARD: 1/2

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.; CHMIELOWSKA, M.

The potassium permanganate-stannous chloride system in acetone. Bul
Ac Pol chim 7 no.7:485-490 '59. (EEAI 10:4)

1. Department of Inorganic Chemistry, Wroclaw Technical University.
Institute of Physical Chemistry, Polish Academy of Sciences.
Presented by W.Trzebiatowski.

(Acetone)	(Potassium permanganate)	(Tin chlorides)
	(Systems (Chemistry))	

JEZOWSKA-TRZEBIATOWSKA, B.; KALECINSKI, J.

X-ray induced reduction of potassium permanganate and manganate in alkaline solution. Bul chim PAN 8 no.2:27-31 '60.

(EEAI 10:9/10)

1. Department of Inorganic Chemistry, University, Wroclaw. Presented by W. Trzebiatowski.

(X-rays) (Potassium permanganate) (Manganates)

PAJDOWSKI, Lech; JEZOWSKA-TRZEBIATOWSKA, Bogusława

Polynuclear vanadium(III) complexes. IV. Determination of the stability of polynuclear complexes. Roczniki chemii 34 no.3/4:775-785 '60. (BEAI 10:3)

1. Katedra Chemii Nieorganicznej Uniwersytetu, Wrocław i Instytut Chemii Fizycznej Polskiej Akademii Nauk, Wrocław
(Vanadium) (Potentiometer)

JEZOWSKA-TRZEBIATOWSKA, Bogusława; PAJDOWSKI, Lech

Polynuclear vanadium(III) complexes. V. Determination of the instability and equilibrium constants in the nonbuffered system VCl_3-ClCH_2COOH . *Rocz chemii* 34 no.3/4:787-797 '60. (REAI 10:3)

1. Katedra Chemii Nieorganicznej Uniwersytetu, Wrocław i Instytut Chemii Fizycznej Polskiej Akademii Nauk, Wrocław
(Vanadium) (Chemical equilibrium)

BARTECKI, Adam; CHMIELOWSKA, Maria; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Inorganic compounds in acetone. Pt. 1. General characteristics of non-aqueous solvents, properties and purification of acetone.
Pt. 2. Durability of acetone against the effect of supermangan.
Przem chem 39 no.4:210-218 Ap '60.

1. Katedra Chemii Nieorganicznej, Uniwersytet i Politechnika, Wroclaw
i Instytut Chemii Fizycznej, Polska Akademia Nauk, Wroclaw,

BARTECKI, Adam; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Vibrational structure of electronic spectra of uranyl nitrate. Pt. 1.
Force constants and U-O distances in organic solvents. Nukleonika 6
no. 4:267-275 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieroganicznej II i Instytut
Chemii Fizycznej PAN.

JEZOWSKA-TRZEBIATOWSKA, Boguslawa; BARTECKI, Adam

The vibrational structure of electronic spectra of uranyl nitrate.
Pt;2.: The dissociation energy of uranyl ion. Nukleonika 6 no.4:
277-285 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieroganicznej II, Instytut
Chemii Fizycznej Polskiej Akademii Nauk.

BARTECKI, Adam; JEZOWSKA-TRZEBIATOWSKA, Boguslawa

Vibrational structure of electronic spectra of uranyl nitrate. Pt. 3.
Transition intensities in the spectra of uranyl nitrate. Nukleonika 6
no. 4:287-294 '61.

1. Politechnika, Wroclaw, Katedra Chemii Nieorganicznej II. i Instytut
Chemii Fizycznej PAN.

S/081/62/000/014/007/039
B166/B144

AUTHORS: Jeżowska-Trzebiatowska, B., Wajda, S., Wojciechowski, W.

TITLE: Para- and diamagnetic rhenium (IV) complexes. Part III.
Complex compounds of rhenium (IV) with organic hydroxy-acids.
Part IV. Rhenium (IV) complexes with phenol carboxylic acids

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1962, 86, abstract 14V57 (Bull. Acad. polon. sci. Ser. sci. chim., v. 9, no. 2, 1961, 57-64; 65-69)

TEXT: III. Complexes $K_2[Re_2O(OH)_6L_2]$ (I) and $K_4[Re_2O(OH)_6L'_2]$ (II) were synthesized; where HL and H_2L' are citric and tartaric acid respectively.

I and II are compounds of RE (4+) got by heating K_2ReCl_6 in solution with an excess of the corresponding acid. From studying the electrical conductivity of solutions of I and II it is shown that these are dinuclear complexes, diamagnetic both in the solid state and in solution. The authors consider that the diamagnetism is brought about by interaction
Card 1/2

S/081/62/000/019/001/053
B144/B180

AUTHORS: Jeżowska-Trzebiatowska, V., Bartecki, A.

TITLE: The solvent effect in absorption spectra of uranyl nitrate

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1962, 13, abstract
19B60 (Bull. Acad. polon. sci. Ser. sci chim., v. 9, no. 2,
1961, 87 - 90 [Eng.; summary in Rus.])

TEXT: The effect of organic solvents on the absorption spectra ($\sim 360 - 500$ m μ) of uranyl nitrate (I) solutions is discussed on the basis of experimental data obtained previously. In the spectra of I solutions the mean distance between the components of the vibrational structure of the electron transition bands is ~ 710 cm $^{-1}$; it is related to the frequency ν_s of the symmetrical stretching vibration of the UO_2^{2+} ion. The solvents cause variations in the energy of the vibrational transitions, the intensities of the absorption bands, and in the vibrational structure of the electron transition bands. No direct relation was found between variations in ν_s and the dielectric constant or dipole moment of the solvents. It is suggested that the vibrational structure of the electron transition bands

Card 1/2

JEZOWSKA-TRZEBIATOWSKA, B.; WAJDA, S.; WOJCIECHOWSKI, W.

Para- and diamagnetic rhenium (IV) complexes. Pt. 8. Bul chim
PAN 9 no.12:767-772 '61.

1. Department of Inorganic Chemistry, University, Wroclaw, and
Institute of Physical Chemistry, Polish Academy of Sciences,
Wroclaw. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; KALECINSKI, J.

The radiation chemistry of oxyanions of transition elements.
Pt. 1. Bul chim PAN 9 no.12:791-797 '61.

1. Department of Inorganic Chemistry, University, Wroclaw, and
Institute of Physical Chemistry, Polish Academy of Sciences,
Wroclaw. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; PRZYWARSKA, H.

The acid base and structural equilibria in binuclear rhenium (IV) complexes. Bul chim PAN 9 no.11:679-684 '61.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish Academy of Sciences. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; WOJCIECHOWSKI, W.

Para- and diamagnetic rhenium (IV) complexes. Pt. 5. The complex of Re (IV) with ethylenediaminetetracetic acid. Ptl. 6. The Racah coefficients and energy levels of some complexes of 5d³ elements. Pt. 7. Energy and length of the oxygen-bridge bond in binuclear Re (IV) complexes. Bul chim PAN 9 no.11:785-704 '61.

1. Department of Inorganic Chemistry, University, Wrocław. Presented by W. Trzebiatowski.

S/081/63/000/001/023/061
E144/D106

AUTHORS: Jeżowska-Trzebiatowska, B., Kaleciński, J.

TITLE: Radiation chemistry of oxy-anions of transition elements.
Part 1. Reduction of potassium permanganate in aqueous
solutions by Co^{60} γ -rays

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 88, abstract
18613 (Bull. Acad. polon. sci. Sér. sci. chem., v. 9,
no. 12, 1961, 791-797 [Eng., summary in Russ.])

TEXT: The reduction of KMnO_4 was studied in neutral solutions under the
effect of Co^{60} γ -rays. The reduction proceeds in two successive stages:
 $\text{Mn}^{7+} \longrightarrow \text{Mn}^{4+}$ (1) and $\text{Mn}^{4+} \longrightarrow \text{Mn}^{2+}$. G of stage (1) with
 $[\text{MnO}_4^-] = 0.46 \cdot 10^{-4}$ M equals 2.86 and increases proportionally to
 $[\text{MnO}_4^-]^{1/2}$ up to 5.04 with $[\text{MnO}_4^-] = 4.35 \cdot 10^{-4}$ M. After complete
disappearance of Mn^{7+} , reduction of Mn^{4+} is initiated resulting in a yield
Card 1/2

Radiation chemistry of ...

S/061/63/000/001/023/061
B144/B186

of 1.75. The high reduction yields are explained by chain reactions.
[Abstracter's note: Complete translation.]

✓
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S/058/63/000/002/021/070
A062/A101

AUTHORS: Jeżowska-Trzebiatowska, B., Kędzia, B.

TITLE: Molecular spectroscopy of anhydrous uranyl salts. I. Absorption spectra of anhydrous uranyl nitrate in some organic solvents

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 28, abstract 2D162 ("Bull. Acad. polon. sci. Ser. sci. chim.", 1962, v. 10, no. 6, 275 - 281, English; summary in Russian)

TEXT: Absorption spectra of anhydrous uranyl nitrate in diethyl ether, acetone, 2-heptanon, formamide, dioxane and acetylacetone, are obtained. In the range 360 - 500 m μ , 10 absorption bands were found. Like in the spectra of hydrates of uranyl nitrate, the electronic oscillating nature of the spectra is here conserved, and more clearly so in the visible portion of the spectrum. In the ultraviolet region there is observed, depending on the solvent, a certain blurring of the absorption bands. It may be concluded that in the visible portion of the spectrum water does not in principle affect the spectral form of uranyl nitrate in organic solvents.

[Abstracter's note: Complete translation]
Card 1/1

JEZOWSKA-TRZEBIATOWSKA, B.; BARTECKI, A.; KEDZIA, B.

Molecular spectroscopy of anhydrous uranyl salts. III. Bul chim
PAN 10 no.8:433-438 '62.

I. Department II of Inorganic Chemistry, Technical University,
Wroclaw. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.
JEZHOVSKA-TRZHEBYATOVSKA, Boguslava [Jezowska-Trzebiatowska, Boguslawa];
KENDZYA, Boguslav [Kedzia, Boguslaw]

Anhydrous uranyl nitrate. Nukleonika 8 no.2:101-115 '63.

1. Kafedra neorganicheskoy khimii II, Vroslavskiy politekhnicheskoy
institut, Vroslav.

WOJCIECHOWSKI, M.; JEZOWSKA-TRZEBIATOWSKA, B.

The electron spin resonance in binuclear chromium III complexes.
Biul chim PAN 11 no.2:79-84 '63.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish Academy
of Sciences, and Department of Inorganic Chemistry, University,
Wroclaw. Presented by W. Trzebiatowski.

KALECINSKI, J.; JEZOWSKA-TRZEBIATOWSKA, B.

Radiation chemistry of oxyanions of transition elements.
Pt. 3. Bul chim PAN 11 no.9:531-537 '63.

1. Institute of Physical Chemistry, Wroclaw Branch, Polish
Academy of Sciences. Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.; WOJCIECHOWSKI, W.

Absorption spectra of nitrosylcyanide complexes of transition metals. Bul chim PAN 11 no.10:567-573 '63.

The application of the M.O. method to investigations of nitrosylcyanide complexes. Ibid.:575-578

1. Department of Inorganic Chemistry, University, Wroclaw.
Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; BUKIETYNSKA, K.

The change of Lande's interval parameter for U (IV) and
the new spectrochemical series. Bul chim PAN 12 no. 2:
123-126 '64

1. Department of Inorganic Chemistry, University, Wroclaw.
Presented by W. Trzebiatowski.

KEDZIA, B.; JEZOWSKA-TRZEBIATOWSKA, B.

Molecular spectroscopy of anhydrous uranyl salts. Pts. 4-5.
Bul chim P/N 12 no.4:243-254 '64.

1. Laboratory of Rare Elements, Institute of Inorganic Chemistry
and Metallurgy of Rare Elements, Technical University, Wroclaw.
Presented by W. Trzebiatowski.

JEZOWSKA-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.

Infrared spectra of pentacyanonitrosyl complexes of transition metals. Bul chim PAN 12 no.8:503-506 '64.

1. Department of Inorganic Chemistry of Wroclaw University.
Submitted May 25, 1964.

DZIEGIELSKI, J.; KALECINSKI, J.; JEZOWSKA-TRZESNIAKOWSKA, H.

The effect of gamma radiation on unrranyl compounds in organic solvents. Pts.1-2. Bul chim PAN 12 no.8:537-549 '64.

1. Department of Inorganic Chemistry of Wroclaw University and Institute for Physico-Chemical Structural Research of the Polish Academy of Sciences, Wroclaw. Submitted May 29, 1964.

JEZOWSKA-TRZEBIATOWSKA, B.; GROBELNY, R.; WOJCIECHOWSKI, W.

Electronic structure of u-oxochlororuthenate and its absorption spectra. Bul chim PAN 12 no.12:827-830 '64.

1. Department of Inorganic Chemistry of Wroclaw University.
Submitted September 30, 1964.

JEZOWSKA-TRZEBIATOWSKA, B.; BALUKA, M.

The oxychloro perchlorate. Pt.5. Bul chim PAN 13 no.1:1-4 '65.

1. Department of Rare Elements Chemistry and Institute of Inorganic Chemistry and Metallurgy of Rare Elements of Wrocław Technical University. Submitted November 18, 1964.

L 34699-65 EPF(c)/EPF(n)-2/EWT(m) Pr-4/Pu-4

ACCESSION NR: AP4045669

P/0046/64/009/07-/0625/0635 17

AUTHOR: Jezowska-Trzebiatowska, B. (Yezhovska-Tshebyatovska, B.);
Kalecinski, J. (Kaletsinski, I.)

TITLE: Radiation chemistry in alkaline solutions

SOURCE: Nukleonika, v. 9, no. 7-8, 1964, 625-635

TOPIC TAGS: radiolysis, alkaline solution, manganese, chromium, oxyanion

ABSTRACT: The general mechanism of radiolysis of alkaline solutions was investigated for solution concentrations varying from dilute (0.07M/l) to concentrated (13.5M/l). Previous studies have dealt primarily with acidic and neutral solutions; alkaline solutions, which involve more complex experimental difficulties owing to hydrolysis reactions, have not been discussed in principle. In the present investigations, radiolysis of alkaline solutions was carried out with the use of scavengers which do not undergo hydrolysis — oxidation—reduction systems of transition metals. The results of kinetic investigations of the radiolysis of manganese (MnO_4^- , MnO_4^{2-} and MnO_4^-) and chromium (CrO_4^{2-} and CrO_2^-) oxyanions and iodide

Card 1/2

L 34699-65

ACCESSION NR: AP4045669

(I⁻) ions were used. The radical and molecular yields were calculated on the basis of the mechanism of manganate radiation reduction in concentrated alkaline solutions and the reduction of alkaline solutions of chromate saturated with hydrogen. The values obtained for these yields were as follows: G_• = 3.79; G_{OH} = 3.00; G_{H₂O₂} = 0.51; G_{H₂} = 0.12. Orig. art. has: 9 figures, 29 formulas, and 2 tables.

ASSOCIATION: Polish Academy of Sciences, Institute of Structural Research, Wroclaw

SUBMITTED: 00

ENCL:00

SUB CODE: IC, GC

NO REF SOV: 001

OTHER: 010

Card 2/2

JEZOWSKI-TRZEBIATOWSKA, B.; ZIOLKOWSKI, J.

Electronic structure and chemical bonding in cyanonitrosyl
complexes of transition metals. Chem zvesti 19 no.3:177-
185 '65.

1. Department of Chemistry, University of Wroclaw, Poland.

VOYTSEKHOVSKI, V. [Wojciechowski, W.]; EZHOVSKA-TSHEBYATOVSKA, B. [Jezovska-Trzebiatowska, B.]; RUDOL'F, N. [Rudolf, N.]

Structure of diamagnetic binucleate molybdenum complexes (V).
Chem zvesti 19 no.3:229-235 '65.

1. Kafedr neorganicheskoy khimii Vrotslavskogo Universiteta,
Wroclaw, Poland.

L 9512-66 EWT(1)/T/EWP(t)/EWP(h)/EWA(m)-2 IJP(c) ID/AT/EM
 ACC NR: AP6002229
 SOURCE CODE: CZ/0043/65/000/003/0177/0185
 AUTHOR: Jezowska-Trzebiatowska, B.; Ziolkowski, J.
 ORG: Department of Inorganic Chemistry, University of Wrocław, Poland
 TITLE: Electronic structure and chemical bonding in cyanonitrosyl complexes of transition metals [Paper presented at the Symposium on the Structure and Properties of Coordinated Compounds held in Bratislava from 2 to 4 September 1964]
 SOURCE: Chemicke Zvesti, no. 3, 1965, 177-185
 TOPIC TAGS: electron structure, chemical bonding, intermolecular complex, transition metal oxide, ion, exchange reaction, radioisotope, IR spectroscopy, metal oxidation, chromium, manganese, iron
 ABSTRACT: The electronic structure of central ions in complexes of the $[M(CN)_5NO]^{n-}$ type and the character of metal ligand bond were interpreted using the radioisotopic exchange method and by the IR-spectroscopic investigations. Investigations of kinetics of the isotopic exchange reaction in the system: $[M(CN)_5NO]^{n-} - ^{14}CN^-$ where $M = Cr, Mn, Fe$ and Co , have shown that the effective valency state of central ions in the complexes investigated is $3+$. The stabilization of metal oxidation state in the pentacyanonitrosyl complexes of chromium, manganese and iron as compared with hexacyanide complexes is due to the increase of stability of $M-NO$ bond, because of the additional π -bond (dative or covalent type). The appearance of π -bond $M-NO$, along.

Card 1/2

Card 2/2

JEZOWSKI, K.

WERWICKI, Andrzej

Poland

no title given

no affiliation given

Warsaw, Przegląd Geograficzny, Vol 34, No 3,
1962, pp 610-12.

Book review:

→ JEZOWSKI, Ks. Development and Arrangement of
Industry in Lower Silesia during the Capitalistic
Period (Rozwoj i rozmieszczenie przemysłu na
Dolnym Śląsku w okresie kapitalizmu), Wrocław
1961, Zakład Narodowy im. Ossolińskich, 225
pages, 7 maps.

JEZSOV, Anatolij Ivanovics [Yeshov, Anatoliy Ivanovich], a kozgazdasagi tudomanyok doktora.

Application of sampling methods in Soviet statistics. Stat szemle 42 no.2:137-151 F'64

1. Szovjetunio Minisztertanacsa mellett mukodo Kozponti Statisztikai Hivatal elnokhelyettese.

BIELECKI, Marian; BRONIECKA, Halina; JEZUITA, Jan; WISNIEWSKI, Lucjan

The activity of certain enzymes in the blood plasma in the early stages of pregnancy and after its interruption. Ginek. Pol. 36 no.4:385-390 Ap '65.

1. Z II Kliniki Położnictwa i Chorob Kobietych AM w Białymstoku
(Kierownik: doc. dr. med. J. Musiatowicz).

MUSIATOWICZ, Jozef; WROBLEWSKI, Marian; SKRZYDLEWSKI, Zdzislaw;
BIELECKI, Marian; JEZUITA, Jan

Thromboelastographic evaluation of the treatment of menorrhagia
using epsilon-aminocaproic acid. Ginek. Pol. 36 no.3:293-298
Mr '65.

1. Z II Kliniki Poloznictwa i Chorob Kobięcych AM w Białymstoku
(Kierownik: doc. dr. med. J. Musiatowicz).

HOBLER, Tadeusz; JEZUSEK, Jerzy; LIPOWSKA, Ludgarda

Effect of alternate squeezing of the inner tube on the coefficient of the heat transfer from the inner tube to the gas flowing through the annular space. Chemia stosow B 1 no.2:181-207 '64.

1. Institute of Chemical Engineering and Apparatus Design, Gliwice, of the Polish Academy of Sciences. Submitted June 20, 1963.

Jezykiewicz, J., Weise, F.

"Devices For Removing the Wire Section", p. 67 (PRZEGLAD PAPIERNICZY, Vol. 9, No. 3, Mar. 1953
Lodz, Poland)

SO: Monthly List of East European Accessions, Vol. 2, # 8, Library of Congress, Aug., 1953
Uncl.

JEZYNA, Czeslaw; MUSIATOWICZ-JEZYNA, Ryta; KOLOSOWSKI, Zygmunt

Attempted evaluation of the diagnostic significance of the erythrocyte agglutination reaction (heterohemagglutination) in infectious hepatitis. Pol. tyg. lek. 17 no.2:41-45 8 Ja '62.

1. Z Kliniki Chorob Zakaznych AM w Bialymstoku; kierownik: doc. dr med. Piotr Boron.
(HEPATITIS INFECTIOUS blood) (HEMAGGLUTINATION)